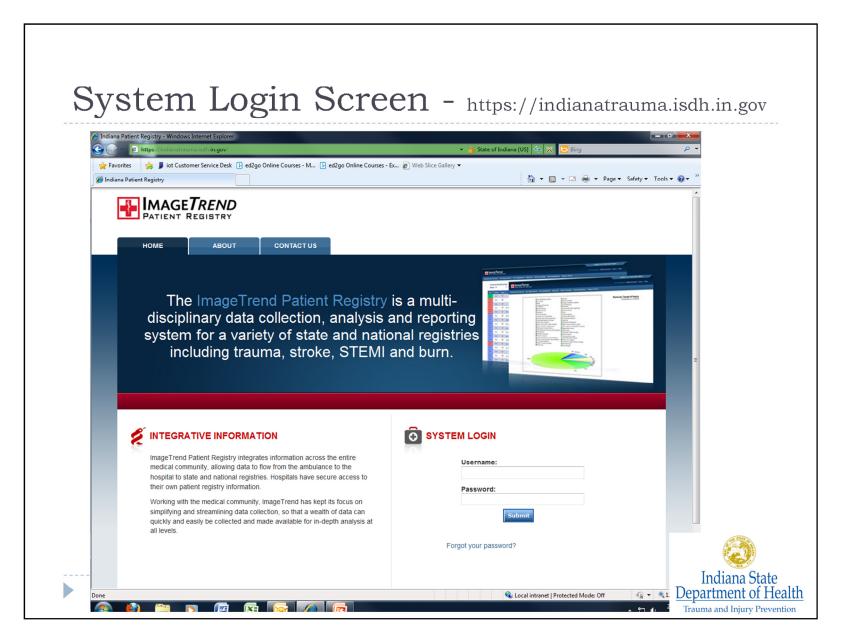
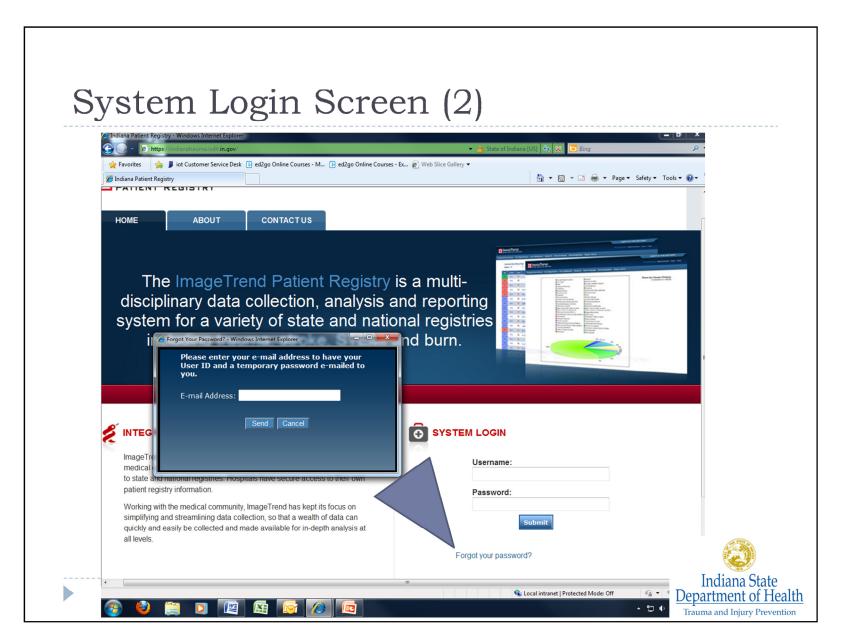


Welcome to the Indiana State Department of Health, also known as ISDH, training module on how to use the Report Writer feature in the Indiana Trauma Registry.

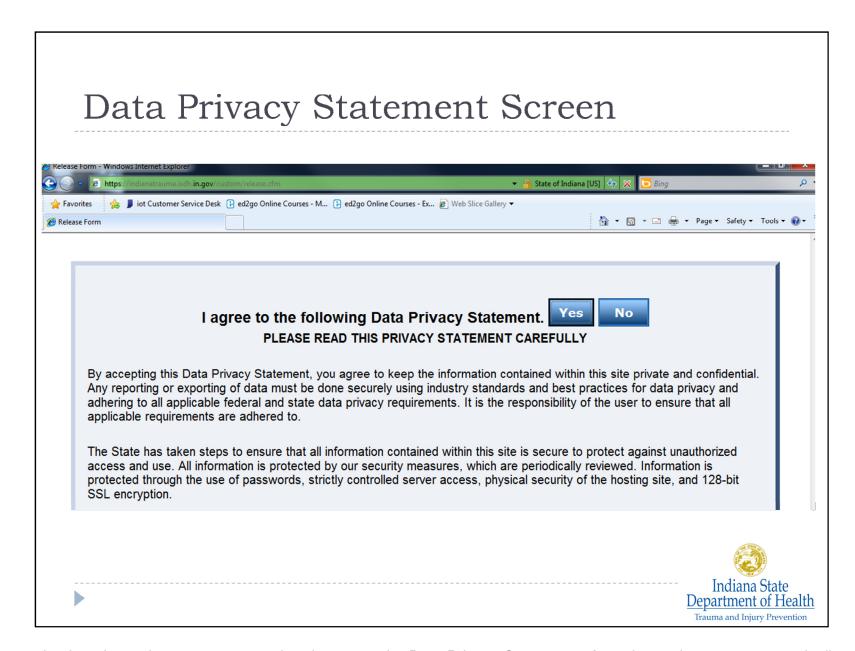
This training explains the capabilities of the Report Writer, the types of reports that can be created, and how to create and customize reports.



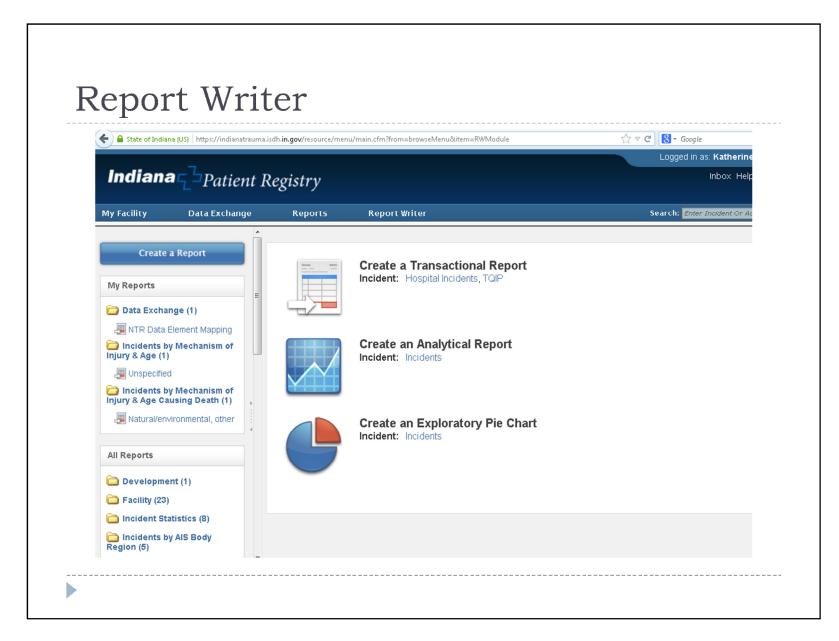
The website for the Indiana trauma registry (also known as the Indiana patient registry) is: indianatrauma.isdh.in.gov



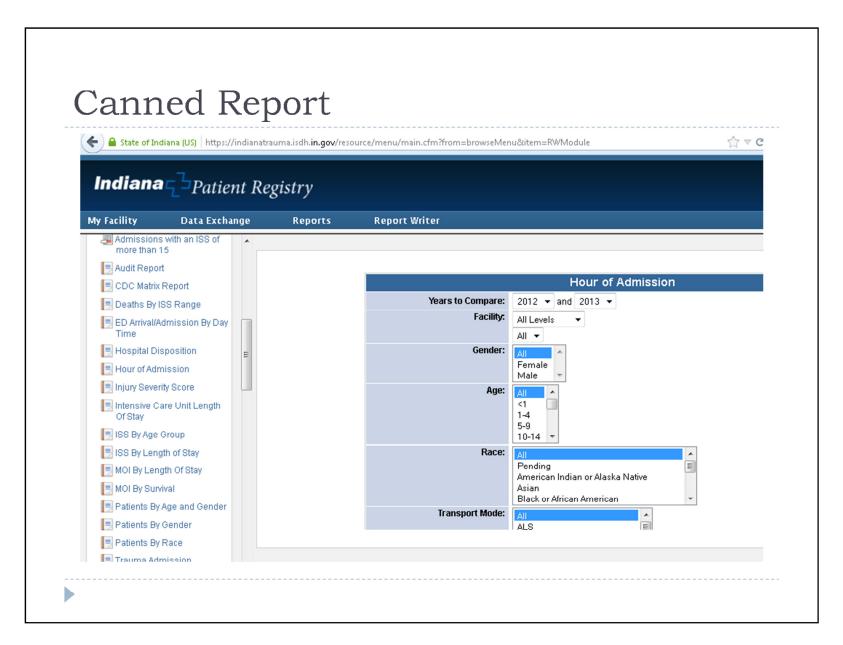
If you ever forget your password, you can click "Forgot your password?" and you will then be prompted to submit your email address. You will receive an email and will be allowed into the system using a temporary password. If there are any questions regarding how to update your password or you are locked out of your account, contact the state's Trauma Registry Manager: indianatrauma@isdh.in.gov



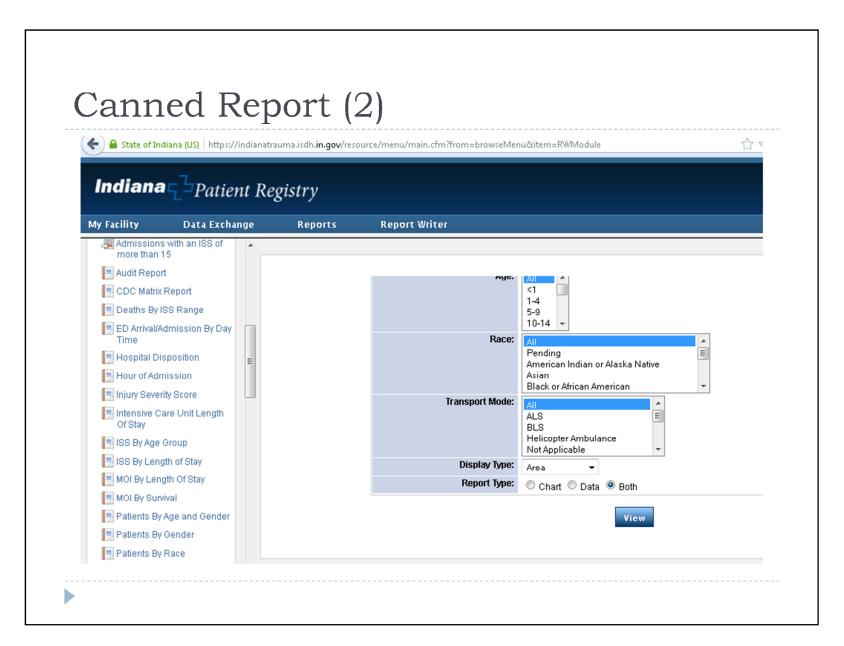
Every time you log into the registry you must read and agree to the Data Privacy Statement. Agreeing to the terms automatically creates a user history and trail of site access in order to comply with security requirements. Click "Yes" to continue to the main registry screen.



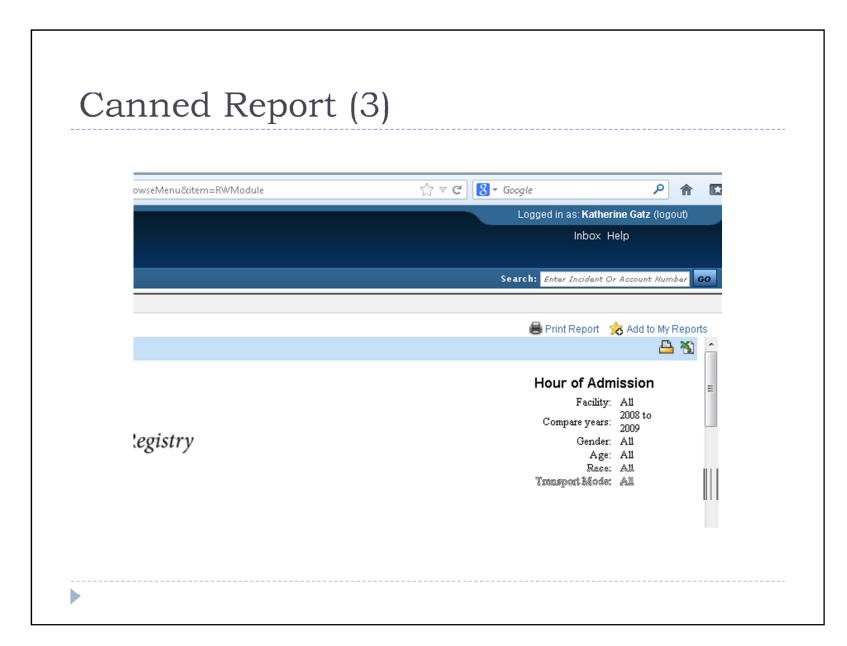
To run reports on the data you have entered into the patient registry, click the "Report Writer" function at the top of the page. You have the option to run 3 different types of reports: transactional, analytical, and exploratory pie chart. They are located in the center of the page. You also have the option to run two types of reports that have already been created: canned and ad hoc. They are available on the left-hand side of the page. If necessary, to expand a category of reports, click the category folder. To begin running an already existing report, click the name of the desired report.



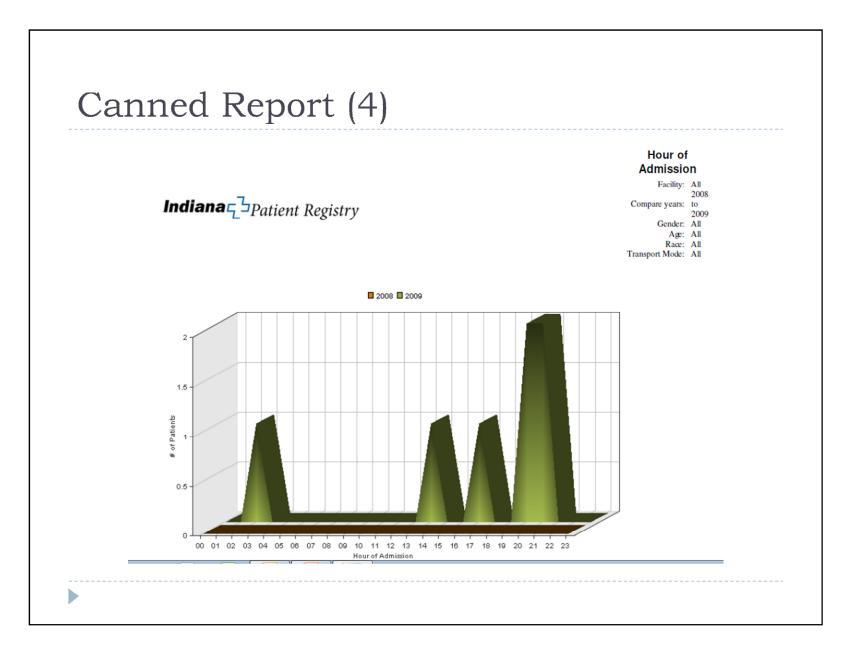
Canned reports (also known as Standard reports) are created by ImageTrend and are identified by a notebook icon. These reports are pre-created with all fields and display options defined for the user, which allows for a ready-made report that is based on common data requests. For this example, we are running the "Hour of Admission" report.



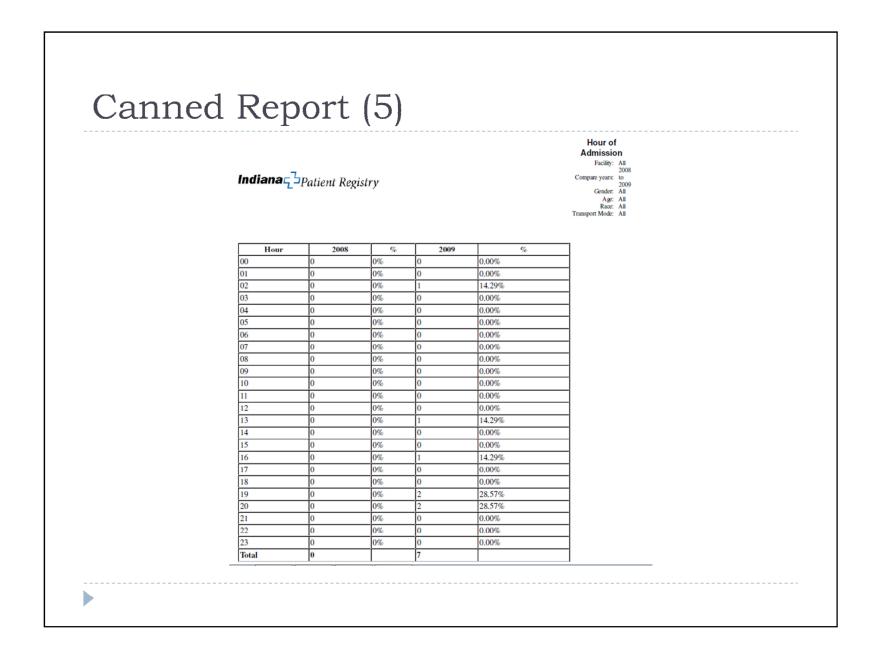
Once you are done selecting the patient population you want to run a report for, you can choose whether the data is displayed through a graph or a table or both. Click the "View' button to display the results.



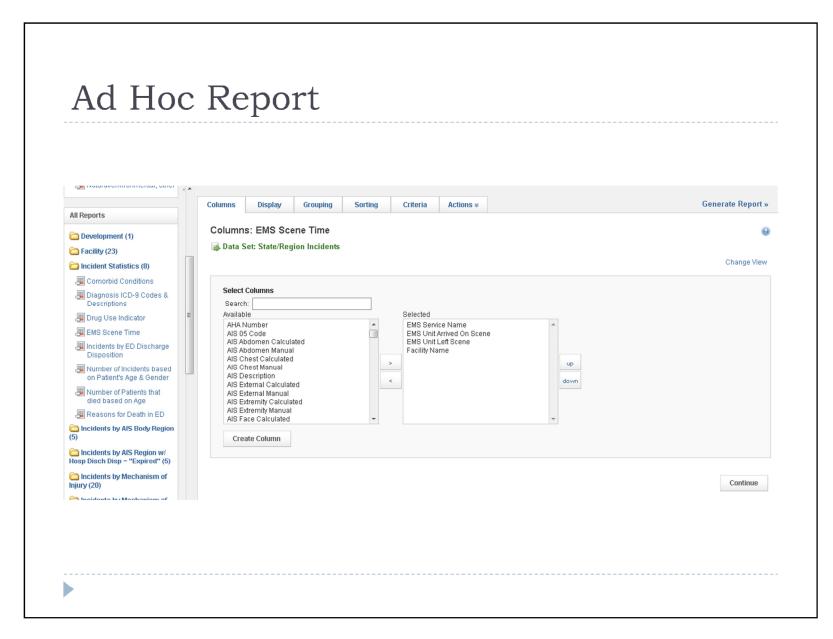
You have several options once the report is produced. You have the ability to print the report (printer icon), add it to your favorites so you can run the same report on a regular basis (star with a plus sign icon), or export the data to Microsoft Excel to analyze the data in other ways (Microsoft Excel icon).



This is an example of what the data would look like once the canned report is produced. The criteria used to create the report will appear in the top right of the page and the graph will appear in the center of the page. If both the graph and table option is selected, the table will appear below the graph.



This is an example of what the data would look like once the canned report is produced. The criteria used to create the report will appear in the top right of the page and the table will appear in the center of the page.

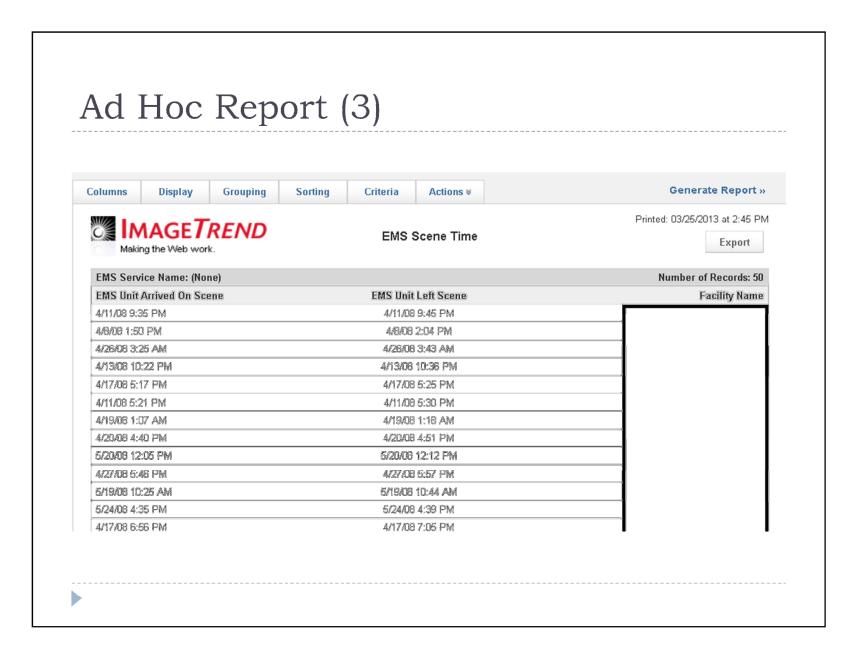


The next type of report is called an Ad Hoc report (also known as a transactional report). These reports are identified by an icon that look like a table with a red box on the bottom. These reports have been built by the division of trauma and injury at the Indiana State Department of Health or other Indiana trauma registry users. You can reconfigured these reports to fit your specific needs. For this report called "EMS Scene Time", the columns, display, grouping, sorting, criteria, and actions have all been set.

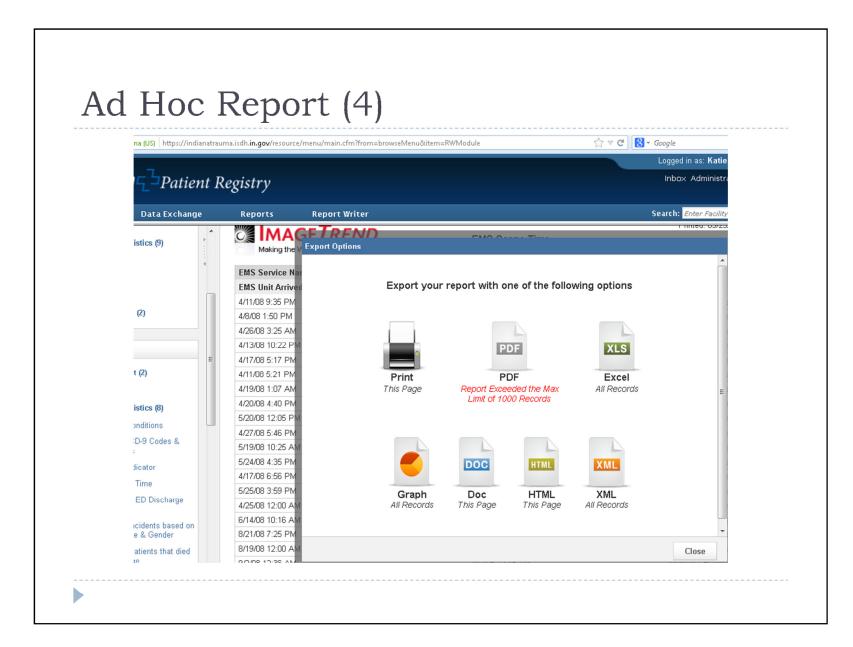
All you need to do is click "Generate Report".



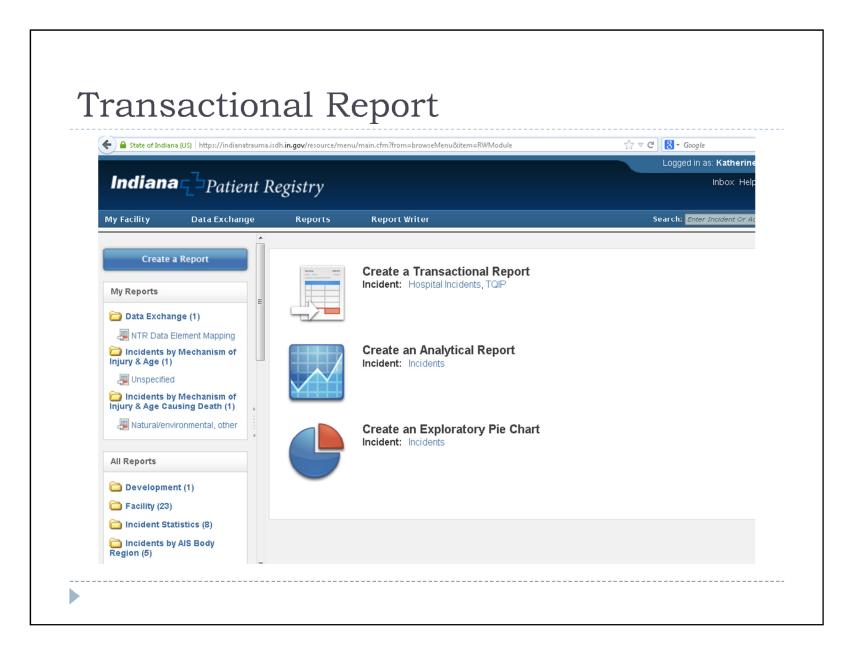
You can specify the timeframe, if you want to display the filters used to generate the report, and how many records per page you want. Then click "Generate".



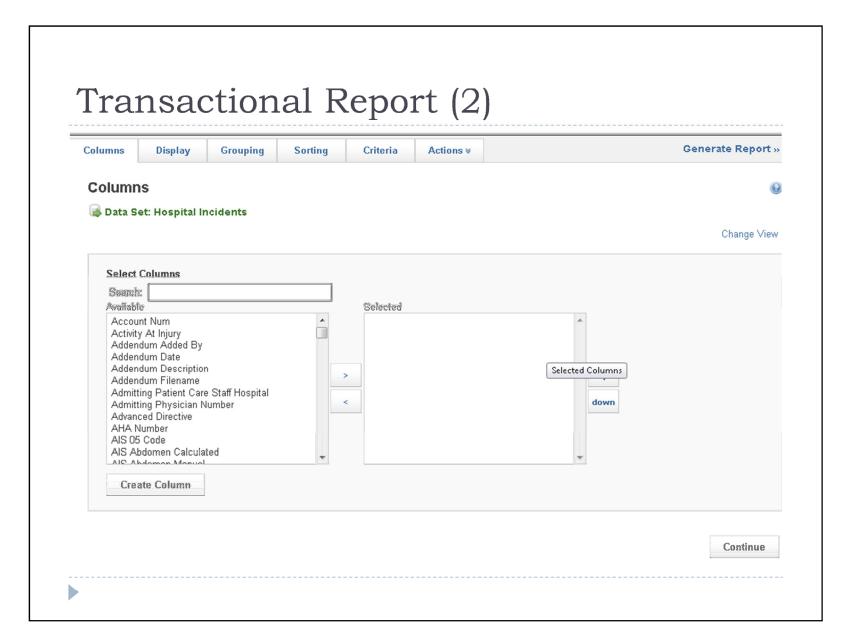
The data will display in a text table format when it is generated. You can pull the data into another program or format by clicking the "Export" button.



The data can be printed as is or it can be exported to a PDF, Microsoft Excel, a graph, a Microsoft Word document, HTML format, or XML format.

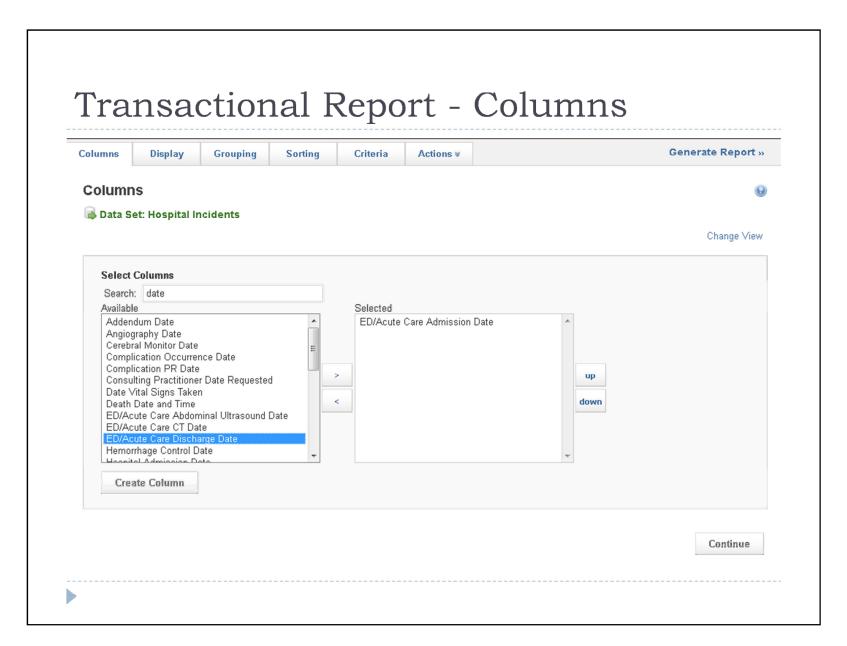


You can build your own report pulling any information you have entered into the Indiana trauma registry using the "Create a Transactional Report" function. You can set which fields display, define criteria for each of those fields (for example, display only records within a certain postal code), and change the order in which records appear. Click on the "Hospital Incidents" title to build your report.

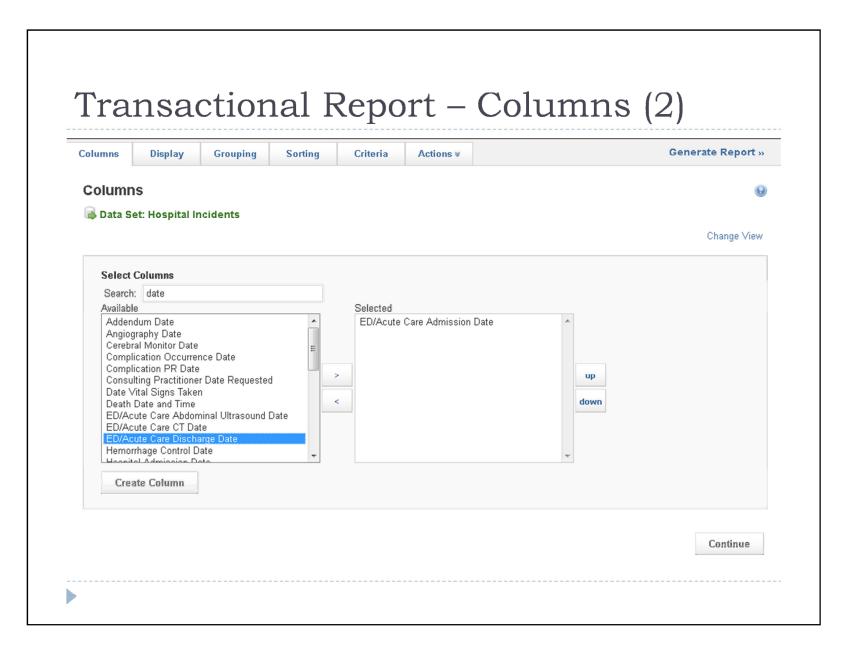


The layout for the transactional report looks similar to when you run an Ad Hoc report. The difference is that for a transactional report, you have to build the report from scratch. This process can be very simple or very detailed, depending on the complexity of the report you want to create. These reports are displayed in a text-based format.

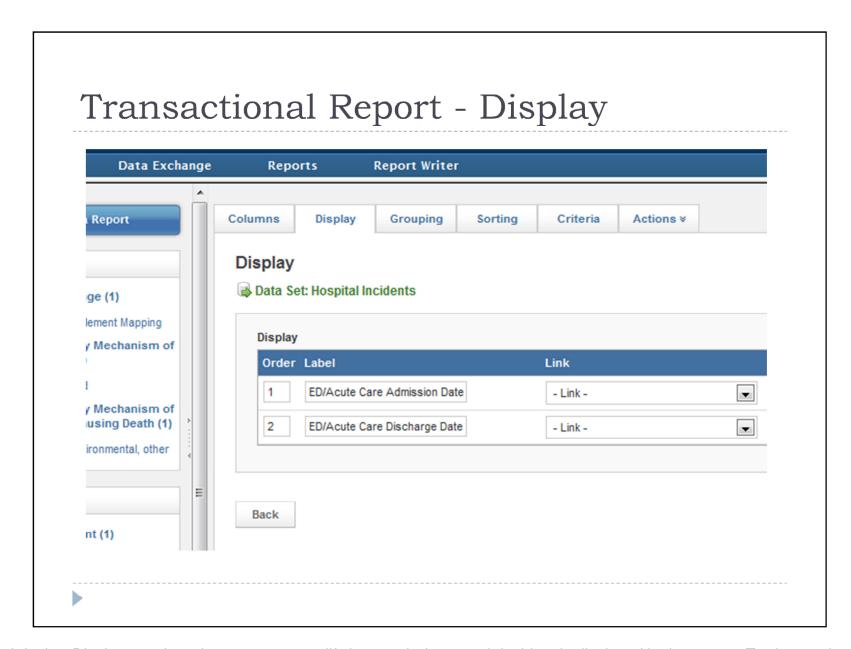
The "Columns" tab allows you to select pieces of information to be included in each column of the report. These pieces of information are based on the fields filled out throughout the system (for example, the fields within a patient incident form or a staff record).



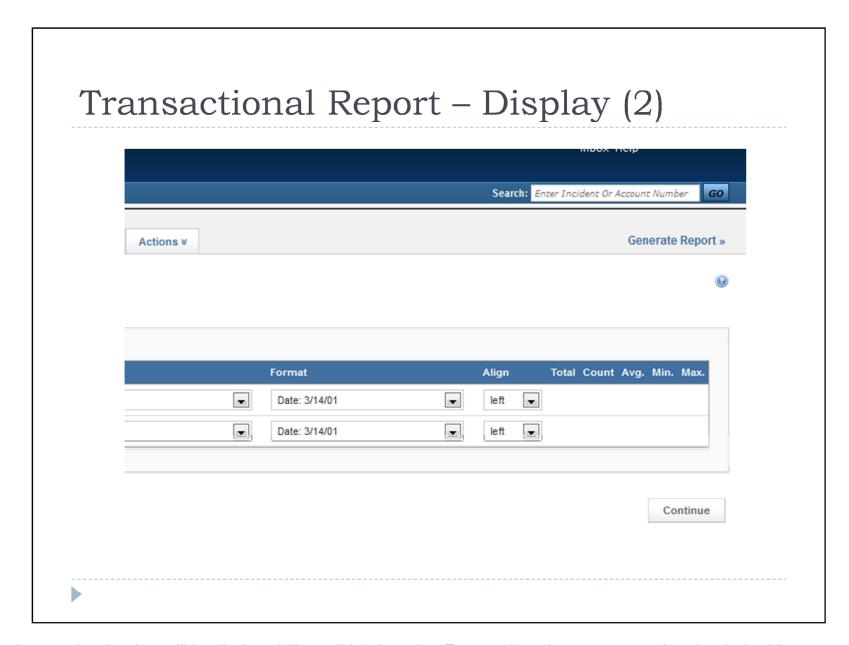
To select the data elements or pieces of information you want to run a report on, you can scroll through the available data points or you can type in the search box. By typing in the search box, you can narrow down the options that are displayed in the box to match your entry. Select the data element you want to include in your report and it will highlight in blue. For this example, I have already selected the "ED/Acute Care Admission Date" data element, and am about to select the "ED/Acute Care Discharge Date". You can select multiple fields by pressing and holding the "Ctrl" key while clicking the name of each field.



To move the data element from the "Available" box to the "Selected" box, click the arrow pointing to the right (greater than symbol) that is located between the two boxes. To change the order in which the data elements appear, highlight each field to move and use the "Up" and "Down" buttons. You can always remove a data element by clicking the arrow pointing to the left (less than symbol). To continue to the next tab, click the "Continue" button.



The next tab is the "Display" section where you can modify how and where each incident is displayed in the report. To change the order of the fields, in the "Order" text boxes, type the numbers corresponding to the order in which the fields should appear. To change the header that will appear for this information on the report, in the "Label" text boxes, type the text that you want to appear. To set a specific field as a link that will open a summary of the record, from the "Link" drop-down menu, select the type of file that should be opened.



To change the way that the data will be displayed (if possible), from the "Format" drop-down menus, select the desired format.

To change the alignment of the information within its column on the report, from the "Alignment" drop-down menus, select the desired alignment.

Transactional Report – Display (3) Search: Enter Incident Or Account Number **Generate Report »** Actions ¥ **Format** Align Total Count Avg. Min. Max. • • -Date: 3/14/01 left Date: 3/14/01 left Continue

For certain numeric values, to display mathematical information (for example, the total number of records or the average value), select the desired checkbox(es).

- "Total" is the sum of the numbers in all rows within the grouping.
- "Count" will display the total number of rows listed within the grouping.
- "Avg" is the mean value of the numbers in all rows within the grouping.
- "Min" is the minimum numeric value within the grouped results.
- "Max" is the maximum numeric value within the grouped results.

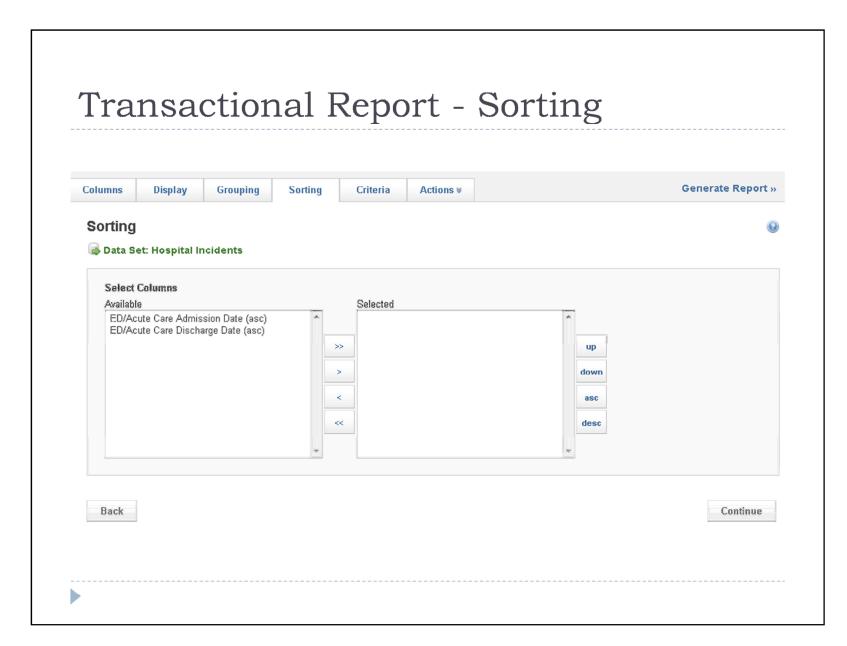
When all changes have been made, click the "Continue" icon.



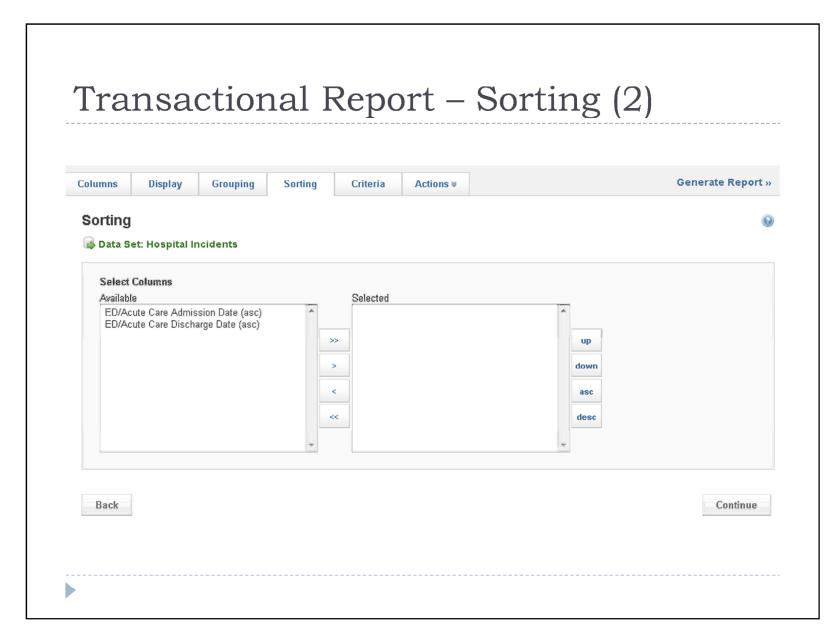
The "columns" tab is used to place all records with similar values in a specific column together (for example, all EMS runs from each service listed together). If you chose to display a minimum value or an average from a column, the report will display a minimum value and average for each group.



To indicate which field to group by, from the "Available" box, select the field and click the arrow pointing to the right (greater than symbol) that is located between the two boxes. You can select as many fields that are in the "Available" box. The field listed first will be the primary grouping field. To change the order, highlight each field to move and use the "Up" and "Down" buttons. Each field following will be grouped within the first field. To select whether the groups will be listed in ascending order (1 to 10 or a to z) or descending order (10 to 1 or z to a), select each group and click the "Asc" or "Desc" icons. You can always remove a data element by clicking the arrow pointing to the left (less than symbol). To continue to the next tab, click the "Continue" button.

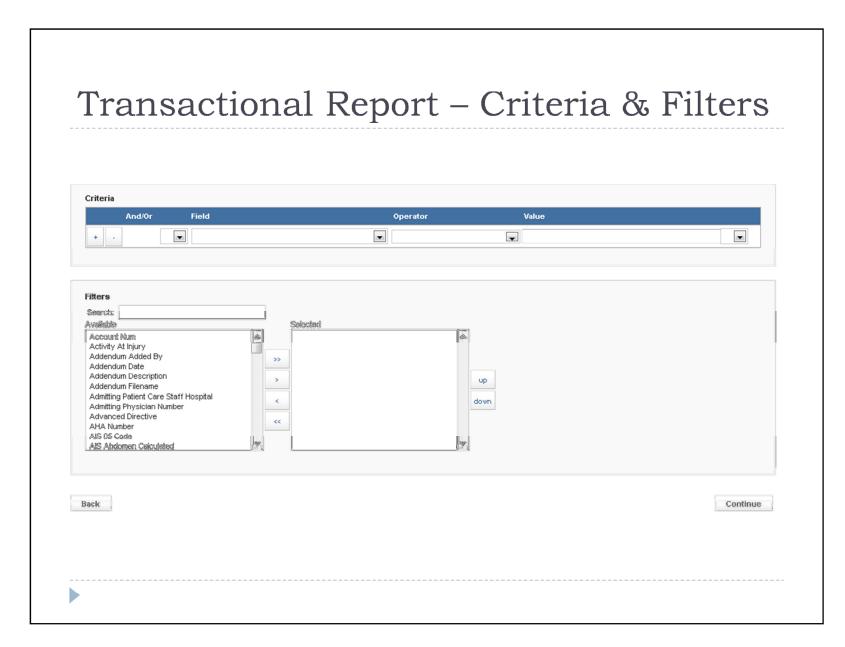


The "Sorting" tab is used if you would like to place records in a particular order (for example, a to z or 1 to 10) by the values in a certain column. When this feature is combined with the grouping feature, sorting will be performed after all data is grouped. When used with grouping, you can only sort fields that have not been grouped.

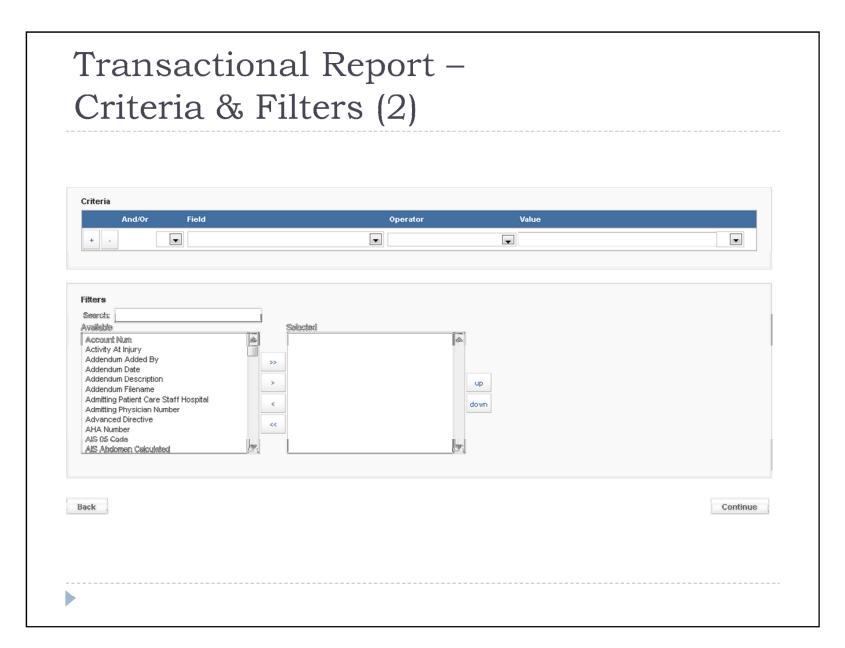


To indicate which field to group by, from the "Available" box, select the field and click the arrow pointing to the right (greater than symbol) that is located between the two boxes. You can select as many fields that are in the "Available" box. The field listed first will be the primary sorting field. To change the order, highlight each field to move and use the "Up" and "Down" buttons. Each field following will be sorted within the first field. To select whether the groups will be listed in ascending order (1 to 10 or a to z) or descending order (10 to 1 or z to a), select each group and click the "Asc" or "Desc" icons. You can always remove a data element by clicking the arrow pointing to the left (less than symbol).

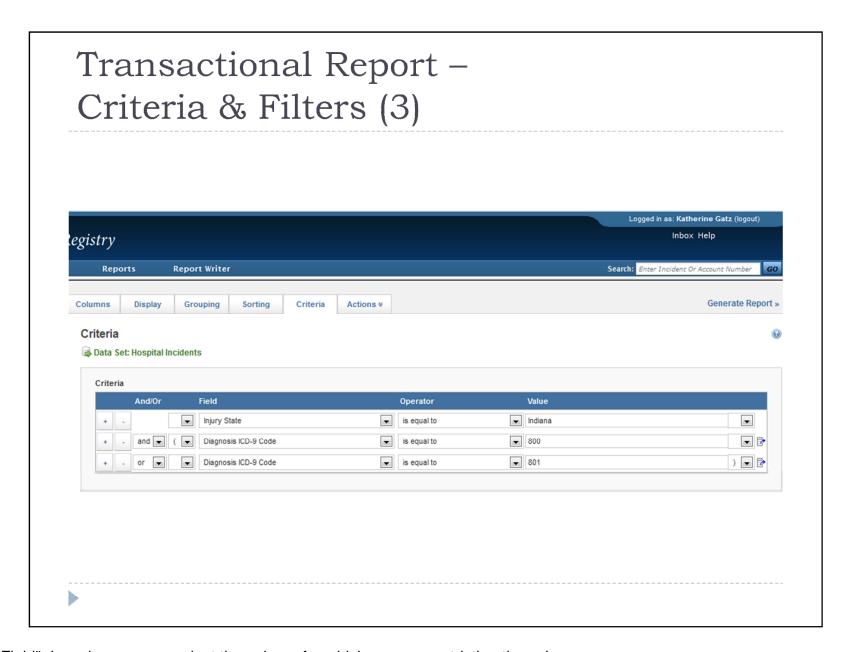
To continue to the next tab, click the "Continue" button.



The "Criteria" tab allows you to determine limits on the data that will be displayed every time this report is run. For example, in a report that displayed only runs in Indiana, criteria would be used to dictate that only records where the "State" field contains "Indiana" will be included. Criteria are important for narrowing the number of results displayed. If your organization has hundreds of records in the system, this is very important to limit the length of the report and prevent the system from timing out when trying to retrieve a large number of records.

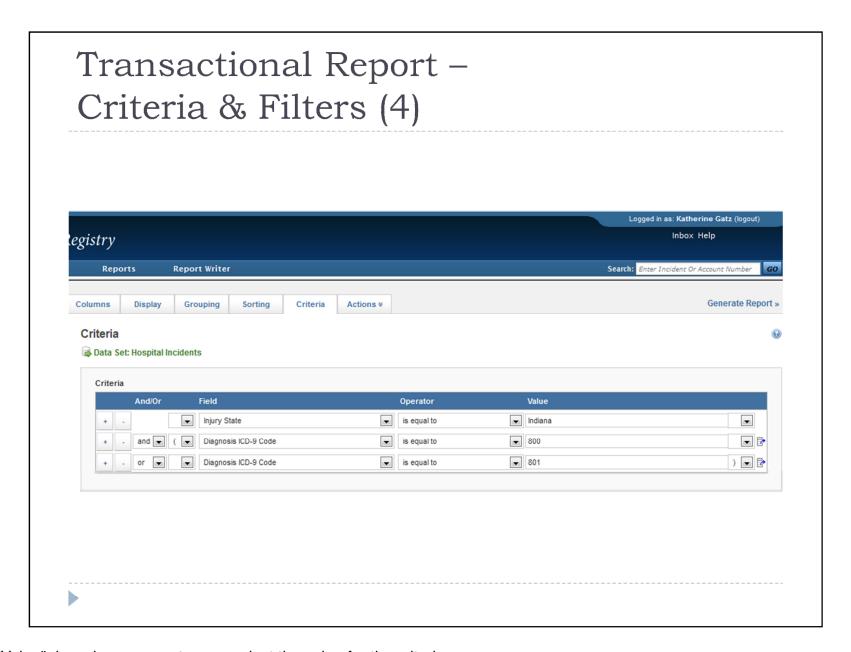


Filters allow you to specify a new value for a criterion each time the report is run. For example, you could use filters to specify a date range, so that each time the report is run, users can select a date range for the runs. Filters are also important for narrowing the number of results displayed.



From the "Field" drop-down menu, select the column for which you are restricting the values.

From the "Operator" drop-down menu, select the way in which the field value must relate to the value you are specifying (for example, if the value should be equal to the one you are about to specify, should not be blank, or should contain the value).



From the "Value" drop-down menu, type or select the value for the criteria.

To add a new criterion, click the plus sign icon and a new row will appear. To relate this criterion to a previous criterion, from the "And/Or" drop-down menu, select whether both criteria must be met ("And") or only one of them ("Or"). If both "And" and "Or" are used within one set of criteria, you will need to use the parentheses in the second drop-down menu to group criteria together.

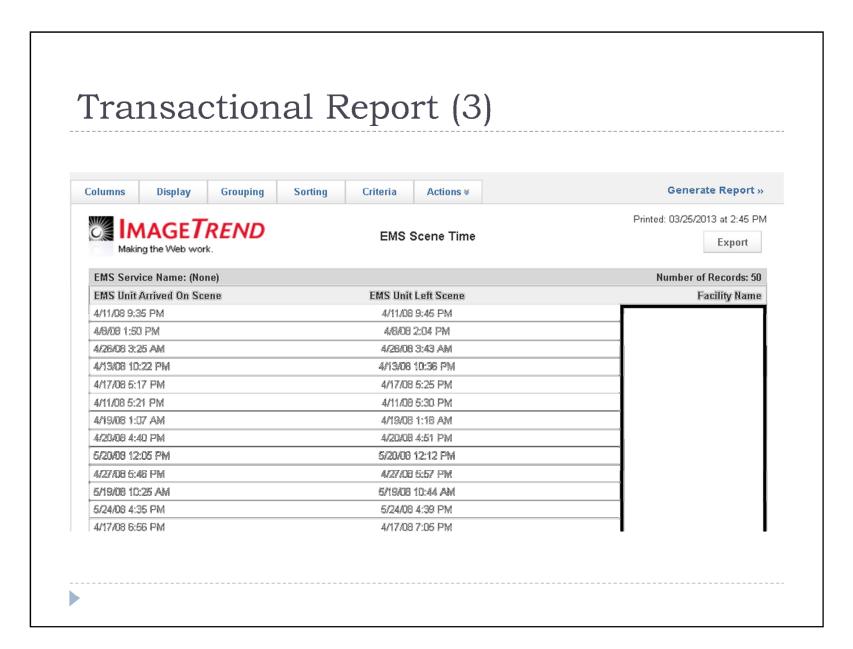
Transactional Report -Criteria & Filters (5) Criteria And/Or Field Value Operator • • • **Fitters** Search Available Selected Account Num Activity At Injury Addendum Added By Addendum Date Addendum Description Addendum Filename Admitting Patient Care Staff Hospital down Admitting Physician Number Advanced Directive AHA Number ALS 05 Code AIS Abdomen Celculated Back Continue

To add a filter, from the "Available" box, select the desired fields. To search for a field to add as a filter, type the name of the field into the "Search" text box. As you type, the options displayed in the "Available" box will be narrowed down to display only options that match your entry. To select multiple fields, press and hold the "Ctrl" key while clicking each desired option. Click the arrow pointing to the right (greater than symbol) that is located between the two boxes to add the field. To change the order, highlight each field to move and use the "Up" and "Down" buttons. You can always remove a data element by clicking the arrow pointing to the left (less than symbol). To continue to the next tab, click the "Continue" button.

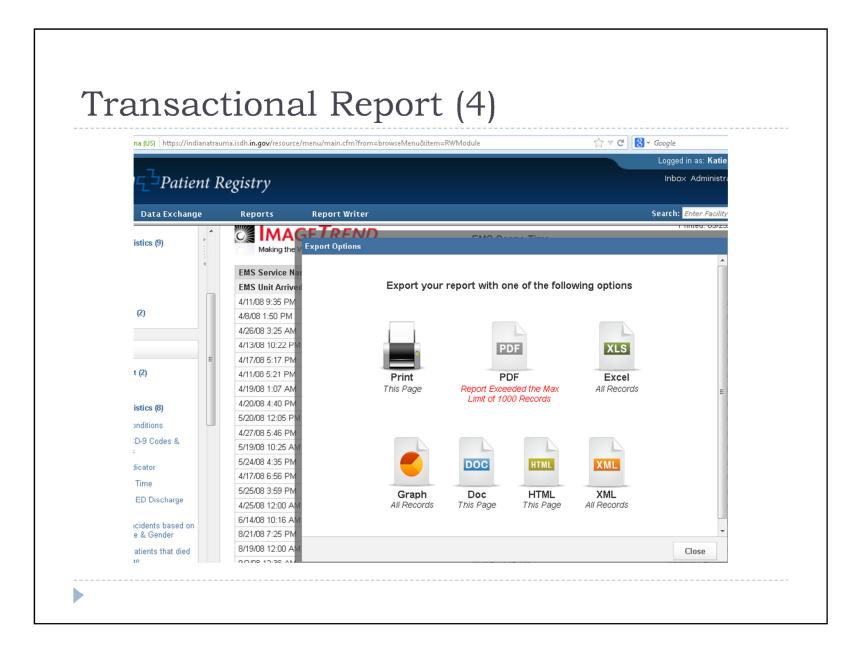
Transactional Report (2) Indiana Patient Registry My Facility Data Exchange Reports Report Writer Columns Create a Report Display Grouping Sorting Criteria Actions ¥ My Reports **Filter Your Results** Data Exchange (1) Records Per Page: MIR Data Element Mapping Incidents by Mechanism of Injury & Age (1) Junspecified Generate incidents by Mechanism of Injury & Age Causing Death (1)

If any filters have been added, you will need to specify the values for the filters before proceeding. Be sure to select how many records you would like to display on each page of this report.

Click the "Generate" icon.



The data will display in a text table format when it is generated. You can pull the data into another program or format by clicking the "Export" button.



The data can be printed as is or it can be exported to a PDF, Microsoft Excel, a graph, a Microsoft Word document, HTML format, or XML format.

Transactional Report (3) Actions ¥ Columns Display Grouping Sorting Criteria Save Actions **Properties** Save As **▶** Data Set: Hospital Incidents ▶ Preferences ▶ Permissions **Report Properties** ▶ Schedule Report Name: ▶ Add to My Reports Description: ▶ Export (Maximum characters: 200) - Category -• Category:

The features under the "Actions" tab are all optional. You can also save the report to run again in the future by clicking the "Actions" tab and then clicking "Save As". If you are making changes to a report that has already been saved, click the "Save" icon.

Transactional Report - Actions Criteria Actions ⊌ Columns Display Grouping **Properties** Data Set: Hospital Incidents **Report Properties** Description: (Maximum characters: 200) - Category -Allow others to see this report Add to My Reports For: Available Selected 1, test 10, test 2, test 3, test Abel, Sarah Adams, Kim Admin, ImageTrend Administrator, System Anderson, Connie Only the Top 1000 Users will display Report will show under My Reports for these users Delete

In order to save a report, enter a title for the report in the "Name" field. You also have the option to type up a description of the report for future reference. Use the "Category" drop-down menu to select which folder the report should be placed. Use the radio buttons to select if the report is visible to others that use the Indiana trauma registry. If you select no, only you will be able to view the report.

Transactional Report – Actions (2) Columns Display Grouping Sorting Criteria Actions ¥ **Properties** Data Set: Hospital Incidents Report Properties Description: (Maximum characters: 200) - Category -Allow others to see this report Add to My Reports For: Available Selected 1. test 10, test 2, test 3, test Abel, Sarah Adams, Kim Admin, ImageTrend Administrator System Anderson, Connie Only the Top 1000 Users will display Report will show under Mv Reports for these users Delete

In the "Add to My Reports For" section, from the "Available" box, select any people who should be able to view the report. This will place the reports in the "My Reports" section of the sidebar for those people. To search for specific users, type the user's name in the "Search" box. As you type, the options in the "Available" box will be narrowed down to display only names matching your entry. Select the field and click the arrow pointing to the right (greater than symbol) that is located between the two boxes. You can select as many fields that are in the "Available" box. You can always remove a data element by clicking the arrow pointing to the left (less than symbol). When finished click the "Save" icon.

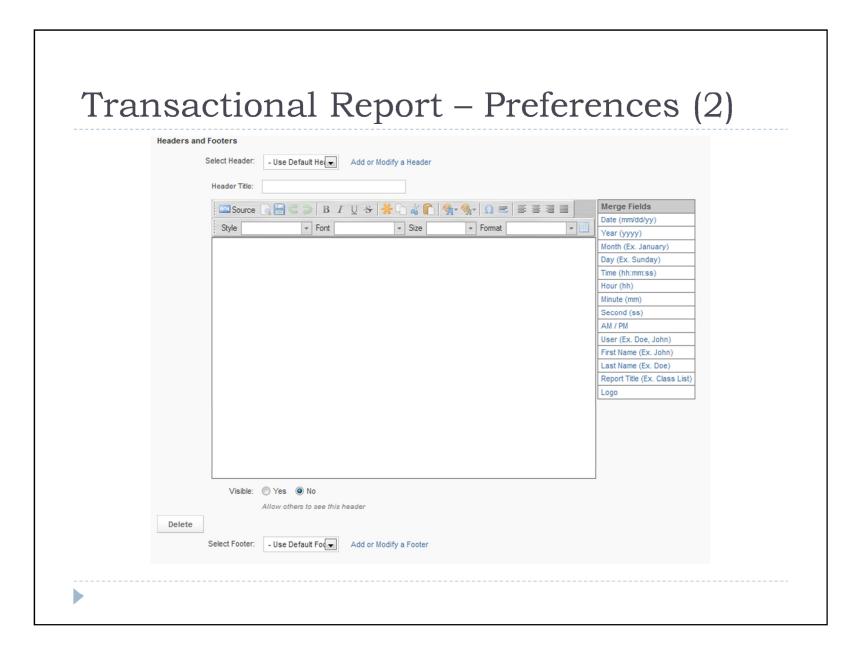
Transactional Report (4) Columns Actions ¥ Display Grouping Sorting Criteria Save Actions **Properties** ▶ Save As **▶** Data Set: Hospital Incidents ▶ Preferences ▶ Permissions **Report Properties** ▶ Schedule Report Name: ▶ Add to My Reports Description: ▶ Export (Maximum characters: 200) Category: • - Category -

You can also change the look of the report by clicking on the "actions" tab and then clicking "Preferences".

Preferences		
Headers and Footers		
Select Header Select Footer		
Style Options		
Text Color	Remove Color Sample Grouping	
Row Colo	Color Sample Row 1 Sample Row 2 Sample Row 3	
Group Colo	r: D7D7D7 Remove Color Sample Row 4 Sample Row 5 Sample Row 9 Sample Row 9	
Display Criteria On	: Top	
PDF Orientation	□ Landscape Portrait Determines this reports PDF page orientation	
PDF Page Break	Yes No Determines if this this report places a page break after each final grouping on the PDF	

From the "Select Header" or "Select Footer" drop down menus, select the header and/or footer you would like to display on the report or you can create a new header and/or footer. Click "Add or Modify a Header" or "Add or Modify a Footer" as appropriate.

The following slides will explain how to create custom headers or footers, as well as the rest of the preferences.



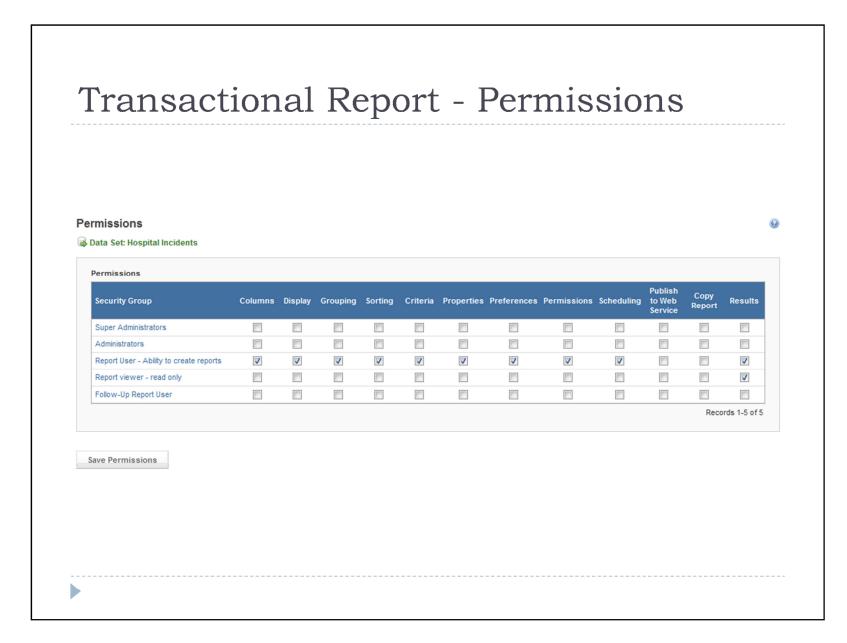
A "Headers and Footers" section will appear. In the "Header Title" text box, type a name for the header. In the text box, enter any text or pictures to be included in the header or footer. To enter any information that will automatically change when the report is generated, click the desired option from the "Merge Fields" section on the right.

Preferences		
Headers and Footers Select Header: Select Footer:	- Use Default Hea Add or Modify a Header - Use Default Foo Add or Modify a Footer	
Style Options Text Color: Row Color:	Sample Grouping Sample Sub Grouping Sample Sub Grouping Sample Column 1 Sample Column 3 Color Sample Row 1 Sample Row 2 Sample Row 3 Sample Row 4 Sample Row 5 Sample Row 6	
Group Color: Display Criteria On:	Color	
PDF Orientation:	© Landscape ● Portrait Determines this reports PDF page orientation	
PDF Page Break:	○ Yes ○ No Determines if this this report places a page break after each final grouping on the PDF PDF	

In the "Style Option" section, select the colors that you would like to apply to the text, rows, or groups. The "Display Criteria on" feature allows you to set whether the criteria is displayed on the top or the bottom of the report. The "PDF Orientation" feature allows you to set whether PDF copies of this report will be displayed on the page with landscape or portrait orientation. The "PDF Page Break" feature allows you to set the report to place each group on a separate page of the report when a PDF is generated. When you are finished, click the "Save Preferences" icon.

Transactional Report (5) Columns Actions ¥ Display Grouping Sorting Criteria ▶ Save Actions Columns: test Save As Data Set: Hospital Incidents ▶ Preferences Report saved successfully ▶ Permissions ▶ Schedule Report ▶ Remove from My Reports Select Columns ▶ Export Search: Available Selected

You can also assign permission to the report by clicking on the "Actions" tab and then clicking "Permissions". This allows you to set who sees which part of the report. Viewing permission can be restricted for parts or all of the report, depending on your preferences.



Use the checkboxes to select the appropriate permissions for each security group. When you are finished, click the "Save Permissions" icon.

Transactional Report (6) Actions ¥ Columns Display Grouping Sorting Criteria ▶ Save Actions Columns: test Save As Data Set: Hospital Incidents ▶ Preferences Report saved successfully ▶ Permissions ▶ Schedule Report ▶ Remove from My Reports Select Columns ▶ Export Search: Available Selected

You can schedule reports to automatically run for individuals at a certain time interval by clicking on the "Actions" tab and then clicking "Schedule Report". Scheduled reports will be delivered as an email attachment.



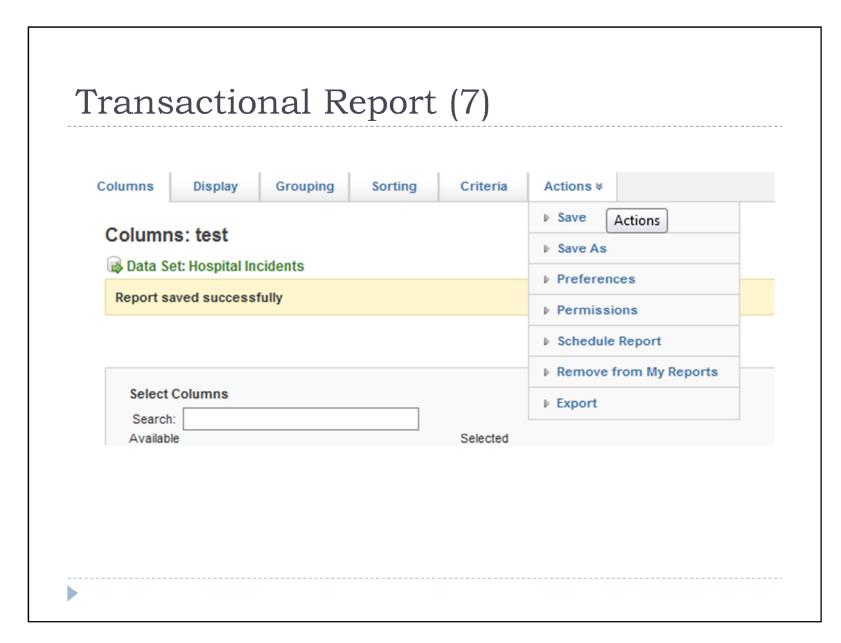
Click the "Schedule Report" button.

Transactional Report -Schedule Report (2) Scheduling: test Data Set: Hospital Incidents Daily on Sunday Monday Tuesday Wednesday When generating a PDF, a maximum of 1000 records will be displayed Subject: Scheduled Report: test Message: Attached is the scheduled report: test Allow Unsubscribe: Yes No Allow recipients to unsubscribe from the report Search: Recipients: Available Selected Gatz, Katherine 10 test 2. test 3, test Abel, Sarah Adams, Kim Admin, ImageTrend Administrator, System Anderson, Connie Only the Top 1000 Users will display Scheduled Report will be schedueld for these users Save Schedule

In the "Recurring" section, select how often this report will run. In the "Time" section, select when the report will run. In the "From" section, type any dates that should restrict when this report will run (for example, if the report should only be run for a month or a year). In the "Format" section, select the format in which the report should be saved (for example, PDF). In the "Subject" section, type a subject line for the email that will be sent with the report.

Transactional Report -Schedule Report (3) Scheduling: test Data Set: Hospital Incidents Daily on Sunday Monday Tuesday Wednesday 12 ▼ : 00 ▼ AM ▼ When generating a PDF, a maximum of 1000 records will be displayed Subject: Scheduled Report: test Message: Attached is the scheduled report: test Allow Unsubscribe: Yes No Allow recipients to unsubscribe from the report Search: Recipients: Available Selected Gatz, Katherine 10 test 2. test 3, test Abel, Sarah Adams, Kim Admin, ImageTrend Administrator, System Anderson, Connie Only the Top 1000 Users will display Scheduled Report will be schedueld for these users Save Schedule

In the "Message" text box, type the message that will appear in the body of the email with the report. In the "Allow Unsubscribe" section, select whether individuals who are selected to receive this report should be able to remove themselves from the list of recipients or not. In the "recipients" section, from the "Available" box, select individuals who should receive this report on this time schedule. When you are finished, click the "Save Schedule" icon.

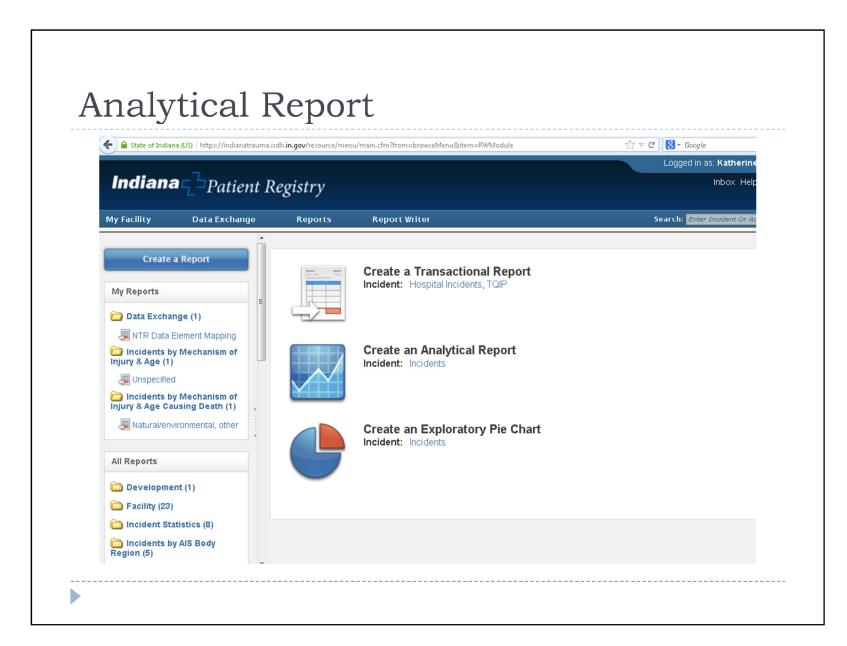


You can remove reports from the "My Reports" section of the sidebar by clicking on the "Actions" tab and then clicking "Remove from My Reports".

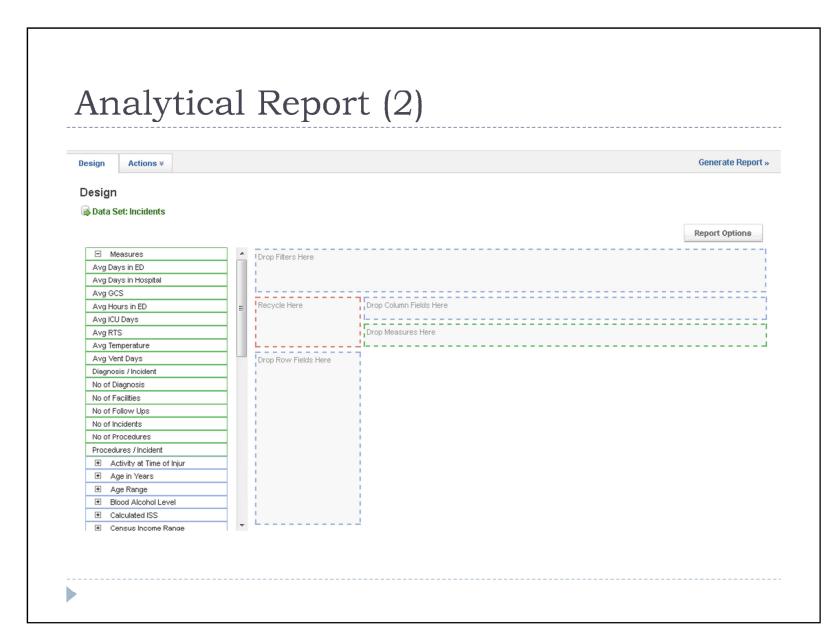
The last feature is the "Export" feature, which allows you to export this report to another program.



The "Export" feature allows the data to be printed as is or it can be exported to a PDF, Microsoft Excel, a graph, a Microsoft Word document, HTML format, or XML format.

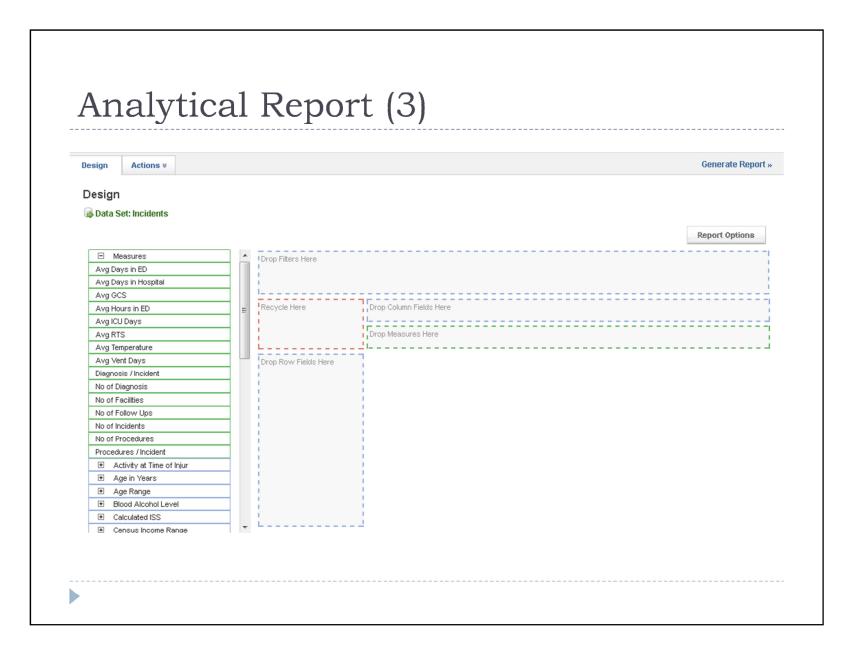


Analytical reporting allows you to build a report with multiple filters, columns, measures, and rows and to see the results of your changes as you work. If you are working with multiple fields, you can expand specific fields to view more detail until you have found the information you are looking for. Please note that the Analytical Reporting module does not use live data, so your reports may not contain data that was added to the system within the last 24 hours.



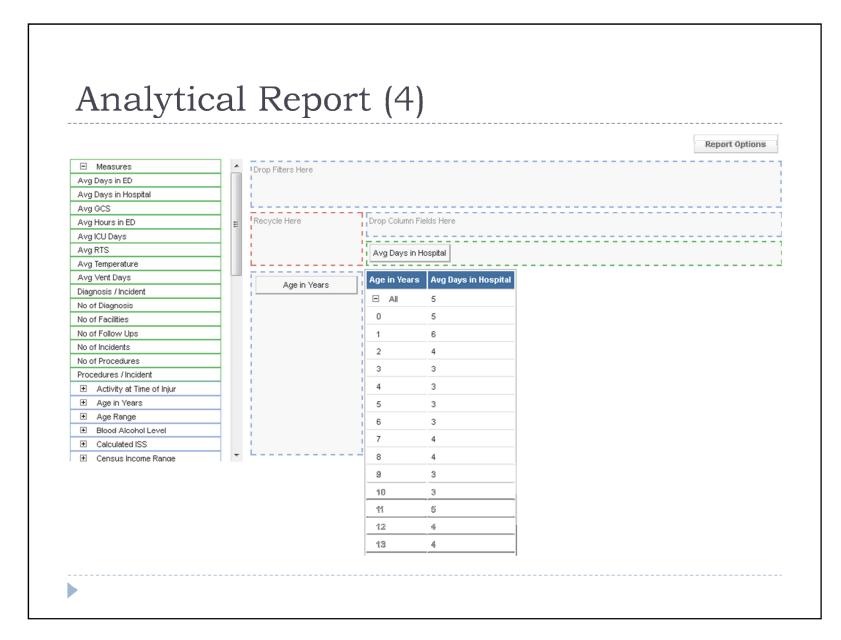
The Analytical Reporting Editor allows you to drag and drop fields you want to add to your report into their desired positions. A preview of the report will appear as you work, giving you instant information to help you build the report.

A list of the available items are located on the left-hand side of the page. Any of the elements in green are called Measures and every report must have at least one Measure. Any of the elements in blue are called parameters and can be added to a report as a row, column, or filter.



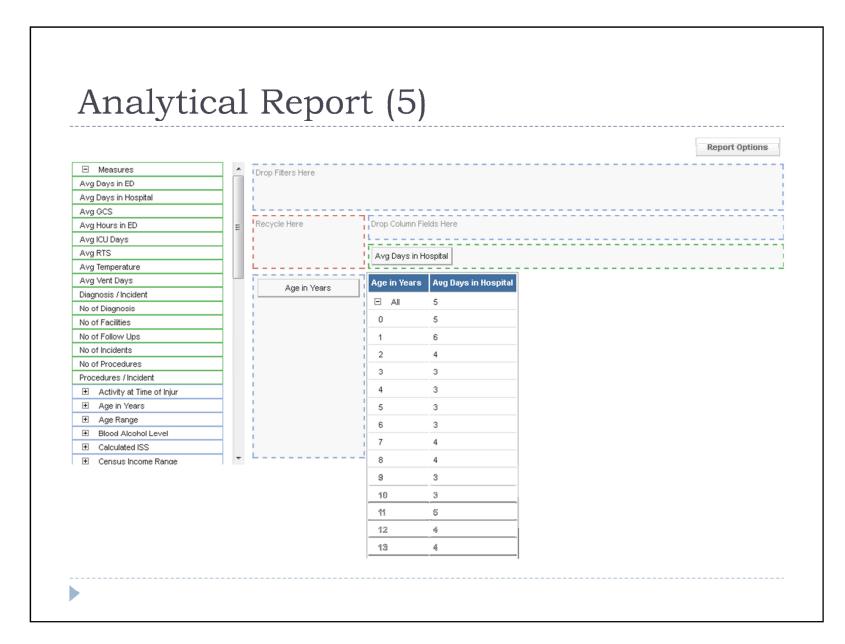
You can drag and drop green elements into the green section of the table and the blue elements into the blue sections of the table. To remove any of the elements (blue or green), drag and drop the element(s) into the red section of the page.

You can build an analytical report by dragging and dropping a parameter or measure to the center sections of the page.



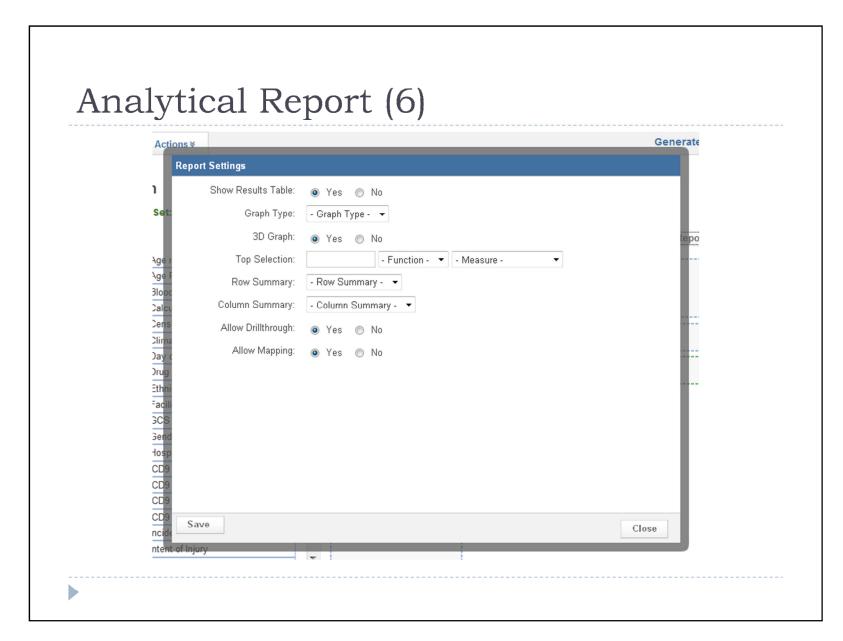
A column is a category of information that will be displayed across the top of the report. Columns can be either parameters or measures, and when expanded each option will appear as a new column. In this example, the column is "Avg Days in Hospital".

A row is a category of information that will be displayed horizontally on the report. You can create rows for any parameter. In this example, the rows are the "Age in Years".



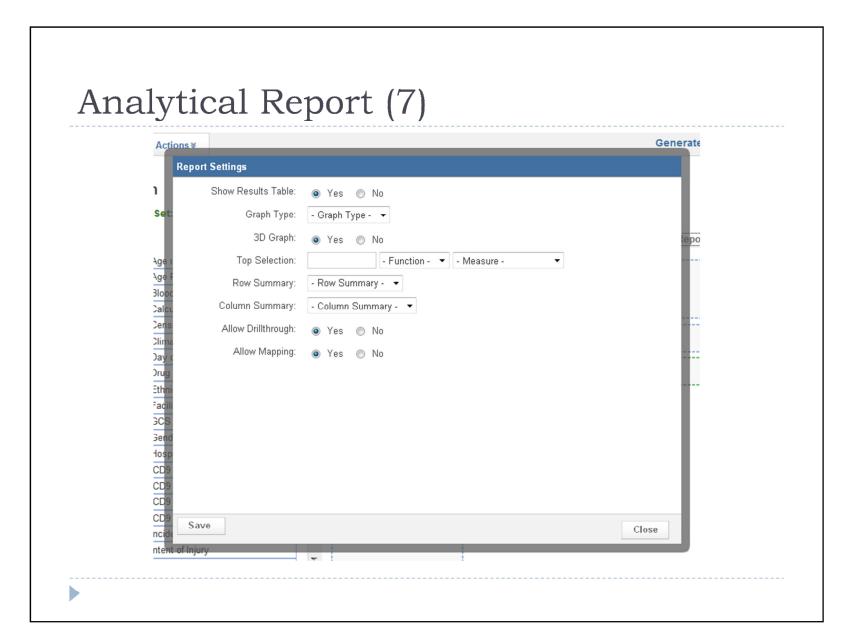
Most parameters in the report have several sub-options. Expanding a parameter displays all sub-options for that parameter in new rows or columns. In this example, we have expanded the "Age in Years" row.

Once you have set up your basic report, you can use the "Report Options" section to add and format graphs based on the data, add summaries, and control whether people will be able to use the "Expand" icons to view further detail in the finished report.



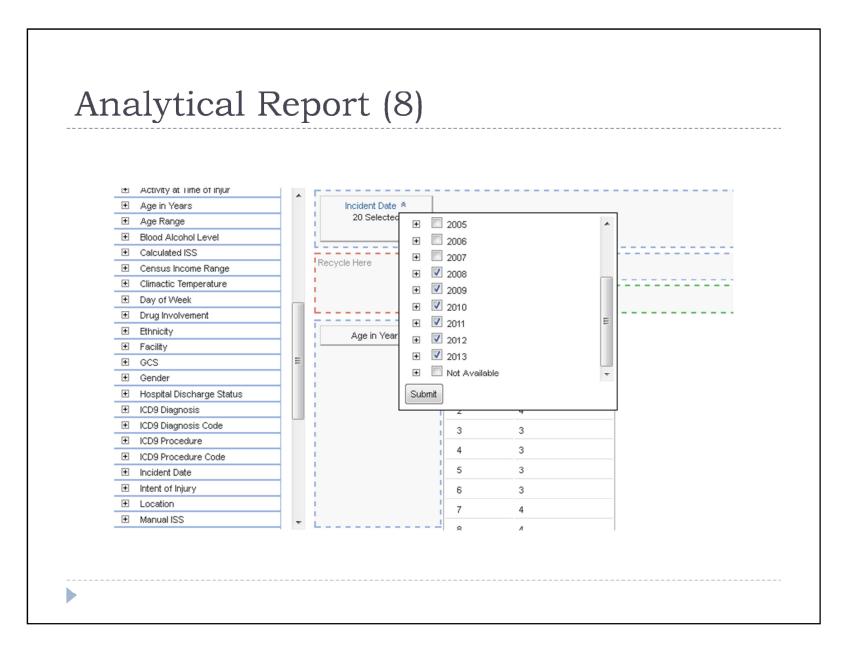
To show the table for the report, select "Yes" in the "Show Results Table" section. To display a graph for the data in the report, from the "Graph Type" drop-down menu, select the type of graph you would like to add. Select "Yes" under 3D graph if you would like your graph to have a 3 dimensional look to it.

Top Selection allows you to select and display the top results based on the following selections: In the text field enter the desired value of top selections, such as 3 for top 3, 5 for top 5, etc. In the "Function" drop-down menu, select whether the value in the text field represents a count of entries (such as top 3 values), or percentage of the whole (such as top 3%). In the "Measure" drop-down menu, select the chosen measures from which the top values will be displayed.

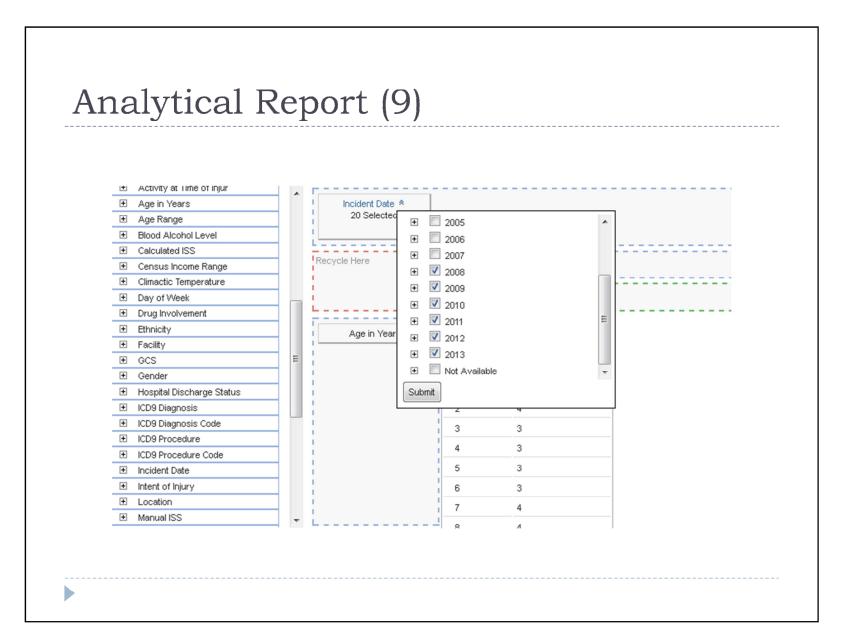


Select the type of summary that should be shown in the row summary and column summary drop down menus in order to display summary information for columns and rows of the table.

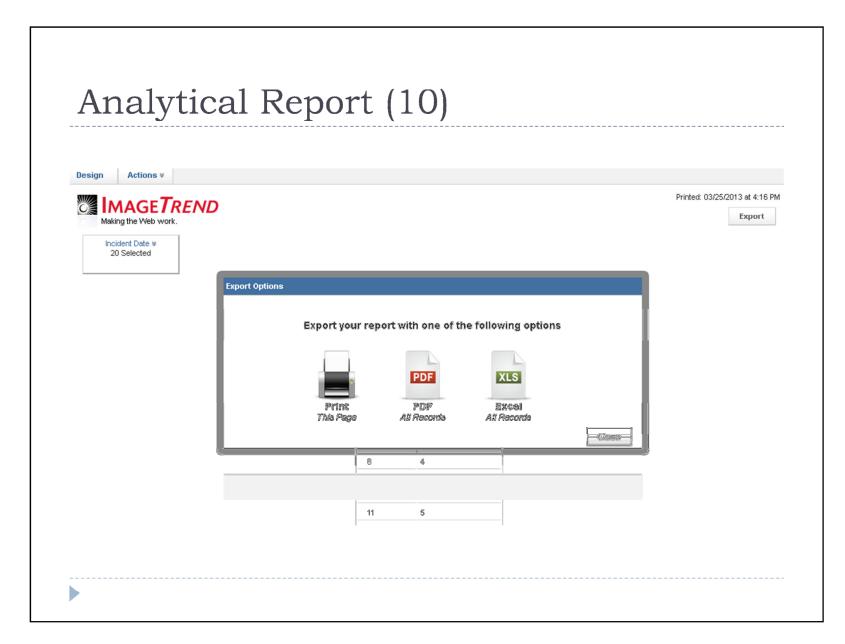
Selecting "Yes" on "Allow Drillthrough" will enable expand and contract icons on the table that will allow users to view more information in the final report. At this time, the "Allow Mapping" feature is not active. When finished, click the "Save" icon.



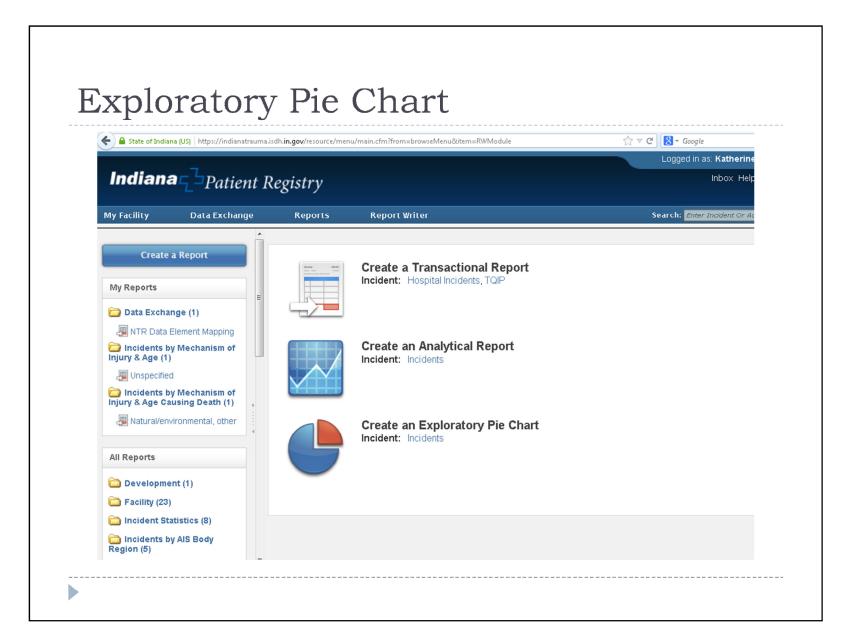
A filter is a field that allows you to view different information on the report according to your current needs. You can select any parameter as a filter, after which you can select specific values from that parameter to display each time the report is run. Filters function like criteria and filters in transactional reports. Adding a parameter as a filter allows you to restrict the results that will be displayed in your report by selecting the options you want displayed.



For this example, we are selecting the incident years to include. Click the name of the filter and the name of the filter will pop up. If necessary, click the plus sign icon to expand and view all the values. Select the checkbox for each value you want included in your criteria. If you select individual values, you may have to deselect the "All" option that is selected by default. Click the "Submit" icon when you are done. The "Actions" menu works the same as the Transactional Report actions menu. Click "Generate Report" once you are done putting the report together.

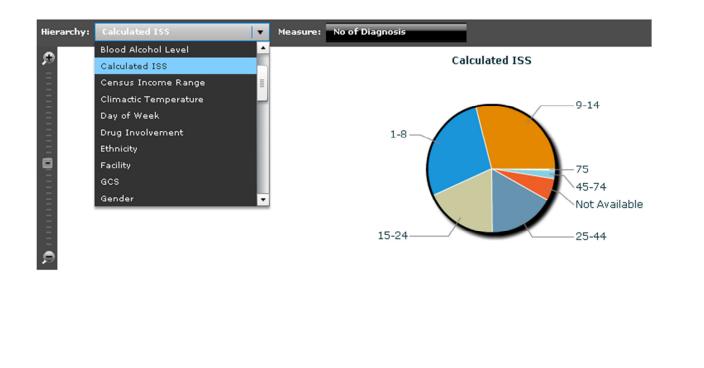


Click the "Export" button in order to create a copy of this report with the current data in either a PDF or a spreadsheet file.

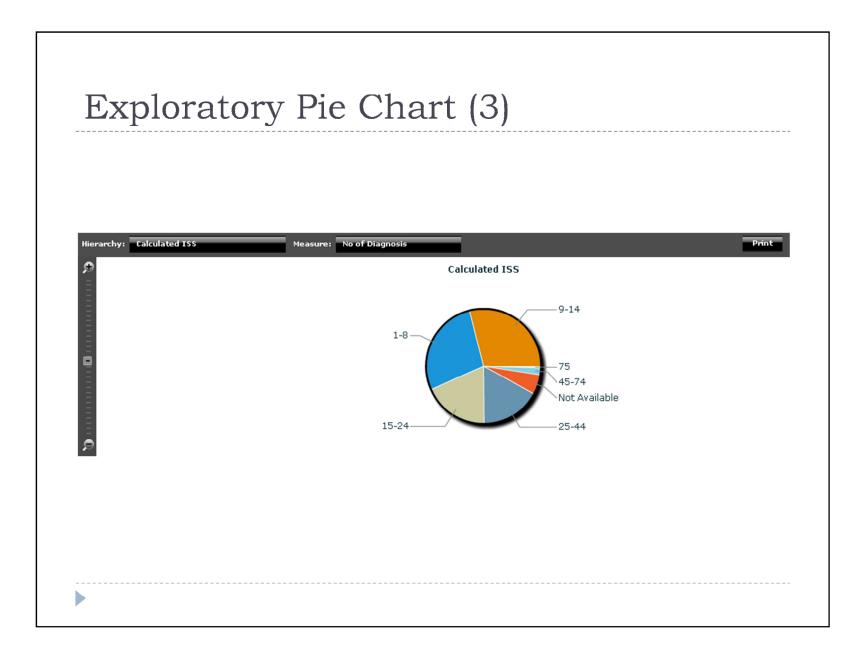


Exploratory pie charts allow you to create pie charts based on the data in your system. Please note that the Exploratory Pie Chart Reporting module does not use live data, so your reports may not contain data that was added to the system within the last 24 hours.

Exploratory Pie Chart (2)



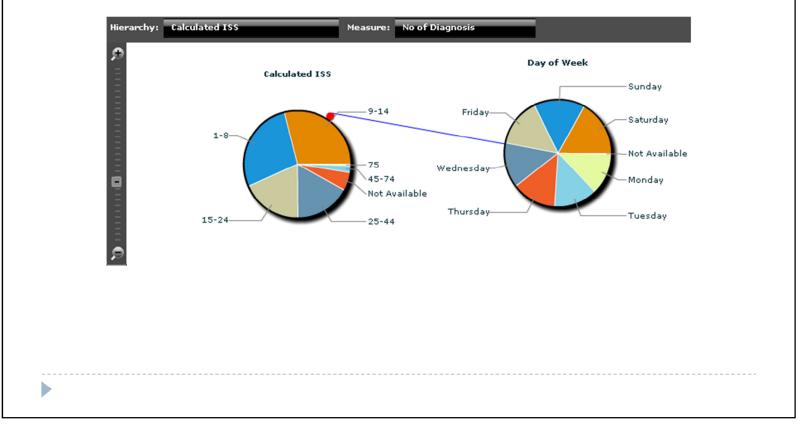
From the "Hierarchy" drop-down menu, select the way that information will be divided. The chart will then appear displaying the data you selected.



From the "Measure" drop-down menu, select the numerical value you want to be displayed in the chart.

For this example, the number of diagnosis' is shown by calculated Injury Severity Score (ISS).

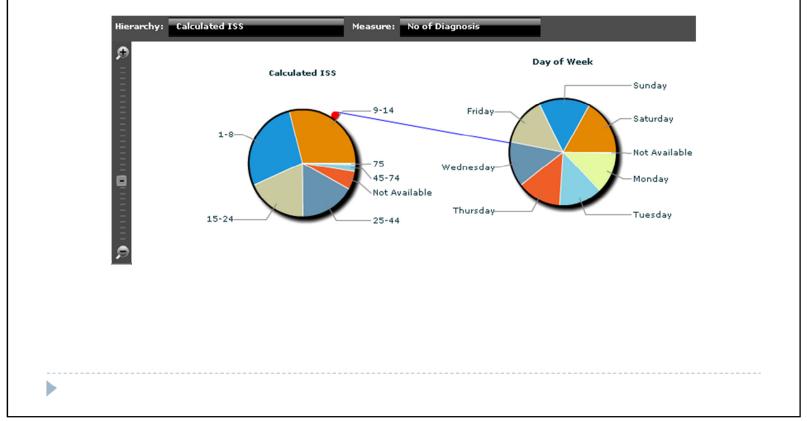




To add another pie chart based on one section of the existing one, click within the "wedge" of the pie chart that you want to examine in more detail. A list of possible data categories appears. Select the information you want to be contained within this pie chart and a new pie chart will appear.

To change the position of any chart, click and drag it to the desired position. To hide a pie chart that you no longer want to view, click the section of the chart that this one was created from. There will always be one pie chart displayed on the page, but you can hide additional ones that you have created.





Click on the "Print" button in order to create a PDF document of the pie charts on the screen that you can save or print.

The "Actions" menu works the same as the Transactional Report actions menu.

Indiana Trauma Registry

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Thank you for viewing the Indiana State Department of Health's training module on how to create a new incident within the Indiana trauma registry. If you have additional questions about any of the features you saw in this training, please contact the Indiana Trauma Registry Manager.